

ABSTRACT

5 The present invention provides several embodiments that ultimately result in the  
in vivo loading of endogenous antigenic peptides from a target cell. The invention also  
presents a method for inducing an immune response to an endogenous antigen in a subject  
by delivering an effective amount of an agent that stimulates in vivo loading of the  
endogenous antigen into an Antigenic Peptide Binding Protein ("APBP"). The APBP  
presents the endogenous antigen to a T cell in vivo. A polynucleotide encoding an APBP  
10 is delivered to a target cell under conditions such that the APBP is expressed in the target  
cell. Endogenous antigenic peptides bind the APBP forming an APBP:peptide complex.  
A cytotoxic agent also is administered to the subject and delivered to the target cell in an  
amount effective to lyse the target cell which releases the complexes. The complexes  
present the antigenic peptide to a T cell or an antigen presenting cell (APC) which mounts  
15 the immune response. An effective amount of an antigen presenting cell (APC)  
recruitment factor can be administered to the subject to recruit APC to the locus of the  
target cell. APCs take up the APBP:peptide complexes and the peptides are processed  
and presented by MHC molecules to T cells in vivo.

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